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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,745	02/09/2004	Eric Theodore Bax		1524

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AVAYA INC.  
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ROOM 1N-391  
LINCROFT, NJ 07738

EXAMINER
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PANNALA, SATHYANARAYA R

ART UNIT	PAPER NUMBER
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2164

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/775,745

Applicant(s)

BAX, ERIC THEODORE

Examiner

Sathyanarayan Pannala

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's Amendment filed on 11/6/2006 has been entered with claims 1-5 were amended. In this Office Action, claims 1-5 are pending.

#### **Priority**

2. Applicant is claiming the benefit of priority under 35 U.S.C. 119(e) since a U.S. Provisional Application No. 60/449,008 is filed on 2/24/2003. So, the examiner honors the priority as per statutory law.

#### ***Drawings***

3. The drawings filed on were received on 11/6/2006 and Examiner approved newly added drawings of Fig. 2-3.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: claim 5, line 11 claiming as "if the machine would halt..." and the alternative option is not listed. Similarly, line 16

claiming as "if the final state lacks a state value list..." and again the alternate option is not given.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-5 are rejected under 35 U.S.C. § 101, because none of the claims are directed to statutory subject matter. Independent claims 1- 3 and 5 merely claiming functional descriptive material, i.e., abstract ideas. Even when a claim that recites a computer that solely calculates a mathematical formula or a computer disk that solely stores a mathematical formula is not directed to the type of statutory subject matter eligible for patent protection. The claims are not producing useful, concrete and tangible results. See *Diehr*, 450 U.S. at 186 and *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US Patent 5,721,939) hereinafter Kaplan, and in view of Perotto et al. (US Patent 5,630,130) hereinafter Perotto.

10. As per independent claim 1, Kaplan teaches a method for tokenizing text by advancing a character by character or breadth first bases by determining all possible tokenization for the text up to a given character position, and for outputting all correct tokenization when all of them are compatible with the text after that character position (col. 2-3, line 66 to line 4). Kaplan teaches the claimed, a method for performing multi-counter evaluation of a text, applying to the text a finite-state machine augmented with state value lists, where each state value list indicates which counter receives which value for the state, accumulating the values of the states separately for each counter of multi-counter, thereby producing a list of counter scores and returning the counter scores (Fig. 10, col. 4-5, line 53 to line 15). Kaplan does not explicitly teach using multi-counters. However, perotto teaches multi-counters (Fig. 1, col. 3, lines 66-67). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Perotto's teachings would have allowed Kaplan's method to provide multitasking controllers to store values of accumulator register and index register (col. 3, line 20 and lines 24-25).

11. As per independent claim 2, Kaplan teaches a method for tokenizing text by advancing a character by character or breadth first bases by determining all possible tokenization for the text up to a given character position, and for outputting all correct tokenization when all of them are compatible with the text after that character position (col. 2-3, line 66 to line 4). Kaplan teaches the claimed, a method for performing counter evaluation of a text, applying to the text a finite-state machine augmented with state value lists, where each state value list indicates which patterns in which counters are found when the state is entered, producing a list of patterns for each counter returning the lists of found patterns and returning the lists of found patterns (Fig. 3-4, col. 8, lines 53-67). Kaplan does not explicitly teach using multi-counters. However, perotto teaches multi-counters (Fig. 1, col. 3, lines 66-67). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Perotto's teachings would have allowed Kaplan's method to provide multitasking controllers to store values of accumulator register and index register (col. 3, line 20 and lines 24-25).

12. As per independent claim 3, Kaplan teaches a method for tokenizing text by advancing a character by character or breadth first bases by determining all possible tokenization for the text up to a given character position, and for outputting all correct tokenization when all of them are compatible with the text after that character position

(col. 2-3, line 66 to line 4). Kaplan teaches the claimed, a method for constructing a multi-counter finite-state machine augmented with state value lists. Kaplan teaches the claimed, providing by computer an empty augmented finite-state machine that has only a start state, with no transitions and no value list and accumulating by computer a finite-state machine of each counter that corresponds to one or more pattern-amount pairs into the augmented finite-state machine to form a merged machine, including converting state values of states of the finite-state machines of the counters into state-value lists of states of the merged machine (Fig. 3, 9, col. 11-12, line 49 to line 21). Kaplan does not explicitly teach using multi-counters. However, perotto teaches multi-counters (Fig. 1, col. 3, lines 66-67). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Perotto's teachings would have allowed Kaplan's method to provide multitasking controllers to store values of accumulator register and index register (col. 3, line 20 and lines 24-25).

13. As per dependent claim 4, Kaplan teaches the claimed, the step of: forming states for the merged machine that correspond to pairs of states that can be reached by starting the finite-state machine and augmented finite-state machine in the start states and applying the machines to a text in unison, with each machine advancing through each text character simultaneously, forming states for the merged machine that correspond to one machine having halted while the other continues to advance through text, for each merged machine state, if there is a corresponding augmented finite-state

Art Unit: 2164

machine state and it has a value list, then copying the value list to form the value list for the new state, for each merged machine state, if there is a corresponding finite-state machine state, it has value, and the merged machine state has no value list, then forming a new empty value list for the merged machine state, for each merged machine state, if there is a corresponding finite-state machine state and it has value, then adding a reference to the counter corresponding to the finite-state machine and the value to the value list for the merged machine state, for each merged machine state with a corresponding augmented finite-state machine state and a corresponding finite-state machine state, for each character in transitions from both states, forming a transition for the merged machine state, with destination the merged machine state corresponding to the states that are the destinations of the transitions, for each merged machine state with a corresponding augmented finite-state machine state and a corresponding finite-state machine state, for each character in a transition from only one of the corresponding states, forming a transition for the merged machine state, with destination the merged machine state corresponding to the state that is the destination of the transition and the machine without the transition having halted, for each merged machine state with a corresponding augmented finite-state machine state or a corresponding finite-state machine state but not both, for each character in a transition from the corresponding state, forming a transition for the merged machine state, with destination the merged machine state corresponding to the state that is the destination of the transition and the machine without the transition having halted (examiner interpreted by repeating the process of Kaplan will achieve the same result) (col. 5,



Art Unit: 2164

lines 16-32). Kaplan does not explicitly teach using multi-counters. However, perotto teaches multi-counters (Fig. 1, col. 3, lines 66-67). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Perotto's teachings would have allowed Kaplan's method to provide multitasking controllers to store values of accumulator register and index register (col. 3, line 20 and lines 24-25).

14. As per independent claim 5, Kaplan teaches a method for tokenizing text by advancing a character by character or breadth first bases by determining all possible tokenization for the text up to a given character position, and for outputting all correct tokenization when all of them are compatible with the text after that character position (col. 2-3, line 66 to line 4). Kaplan teaches the claimed, a method for adding a pattern that consists of a single sequence and a corresponding pattern value from a counter to an augmented finite-state machine, said method comprising the steps of: providing the pattern, providing the corresponding pattern value, providing the augmented finite-state machine having a plurality of machine states, advancing through the machine states as by applying the machine to the sequence of characters as a text, if the machine would halt when applied to the sequence of characters as a text, then adding states and transitions to the machine to prevent halting; for a final state that would be reached by the machine supplemented with the added states and transitions, forming a state value list if the final state lacks a state value list, and adding to the state value list a reference to the counter and the pattern value (col. 5, line 33 to col. 6, line 7). Kaplan does not

Art Unit: 2164

explicitly teach using multi-counters. However, perotto teaches multi-counters (Fig. 1, col. 3, lines 66-67). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Perotto's teachings would have allowed Kaplan's method to provide multitasking controllers to store values of accumulator register and index register (col. 3, line 20 and lines 24-25).

### ***Response to Arguments***

15. Applicant's arguments filed on 11/6/2006 have been fully considered but they are moot in view of the new ground(s) of rejection and details as follows:

- a) Applicant's argument stated as "In contrast, applicant's claims re directed to a merged finite-state machine for a multi-counter that is augmented with state value lists."

In response to Applicant argument, Examiner respectfully disagrees because all claims do not deal with merged finite-state machine. Another prior art is added to overcome amended claims. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

***Conclusion***

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:00 am - 5:00 pm.

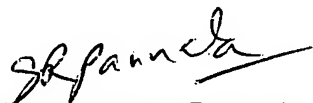
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2164

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Sathyanarayan Pannala  
Primary Examiner

srp  
January 18, 2007